Year 10 Science – Individual Report

Human Genetic Disorders

Each student is required to write an individual report on a specific human genetic disorder. The report is due Thursday 10th June 2010.

You will be assigned a human genetic disorder to research from the list below.

**Disorder**

BRACA1 and BRACA2 (early onset breast cancer)

Colour blindness

Cri du chat

Down syndrome

Haemophilia

Klinefelter’s syndrome

Sickle-cell disease

Tay-Sachs disease

Thalassaemia (alpha or beta)

Turner syndrome

**Structure of Report**

Make sure the name of the disorder and your name is at the top of the report.

In the report you will need to answer the following questions

* Does the disorder have any other names (what are they)?
* Who first discovered the disorder (where and when)?
* What is the affect of the disorder (i.e. what is the phenotype of an affected person)?
* How is the disorder inherited (i.e. is it dominant or recessive, autosomal or sex linked, is more than one gene involved)?
* Has the disorder been ‘mapped’ (assigned) to a particular chromosome and which one(s)?
* Has the DNA sequence for the disorder been worked out and what changes to the DNA sequence cause the disorder? (Some disorders are seen as chromosomal disorders, but the actual cause may be only a small area of the chromosome.)
* What is the frequency of the disorder in the world?
* Is the disorder more prevalent in some parts of the world and why?
* Are the symptoms of the disorder treatable (if they are; how)?
* What is the current research for this disorder and the future for people with this disorder?

The report may be handed in on paper or digitally (as a Word or PowerPoint file) by the end of school on Thursday 10th June 2010. It needs to be the equivalent of 2 typed pages (single spaced 12 point font, normal margins). Neat, hand written reports are also acceptable. A list of references must be included at the end of the report (you need at least 3 references).